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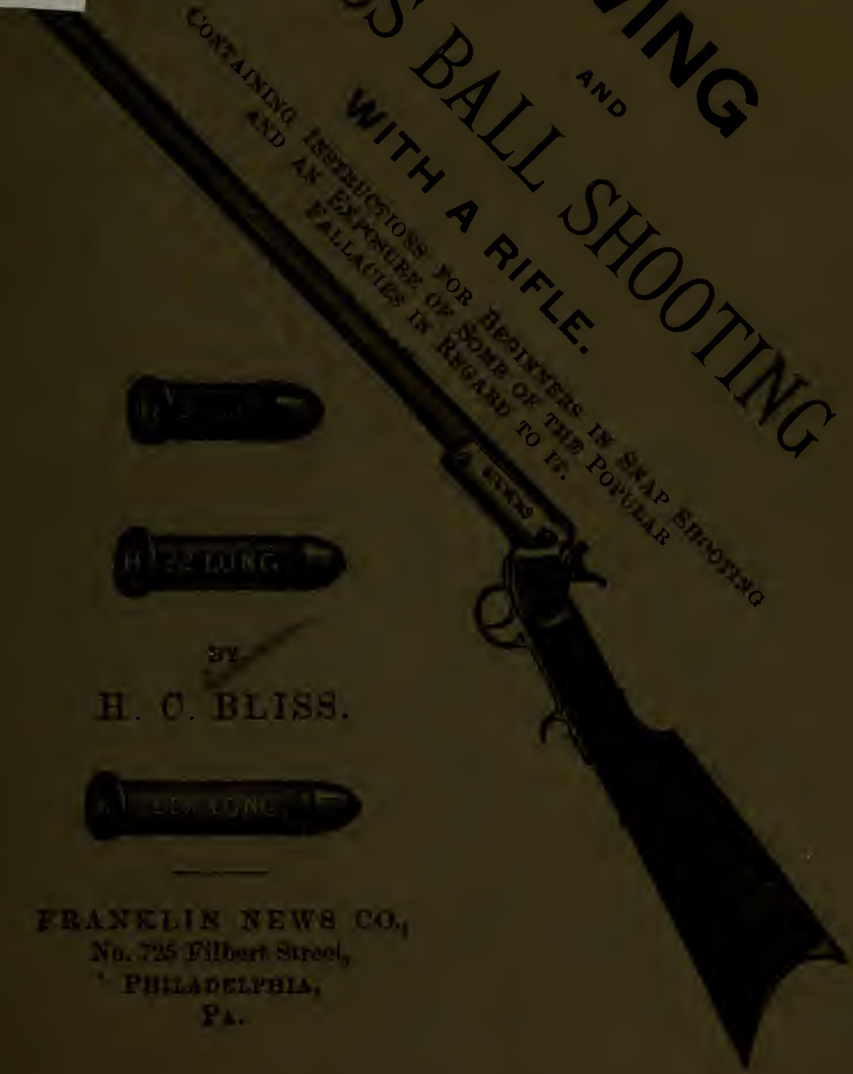
WING AND GLASS BALL SHOOTING WITH A RIFLE.

CONTAINING INSTRUCTIONS FOR BEGINNERS IN SNAP SHOOTING AND AN EXPOSURE OF SOME OF THE POPULAR FALLACIES IN REGARD TO IT.



BY

H. C. BLISS.

FRANKLIN NEWS CO.,
No. 725 Filbert Street,
PHILADELPHIA,
PA.

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PREFACE.

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The author's object in writing the following pages is a sincere desire on his part to encourage Americans to become experts with a rifle. Most of the works that are written and most of the practice that is indulged in is at long range, and while this is undoubtedly a legitimate field for practice, the writer claims that it is just as legitimate and more necessary, by far, for a rifleman to handle his weapon rapidly and accurately at short range. This style of shooting has not been practiced to any great extent except by a few professionals, and they have thrown such an amount of mystery around it that amateurs have thought the art entirely beyond them. If the author can do anything to remove this mystery and show that quick or "snap shooting" with a rifle is within the reach of all, he will have accomplished his object.

H. C. BLISS.

RESPECTFULLY DEDICATED
TO THE AMATEUR RIFLEMEN OF AMERICA
BY THE AUTHOR.

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CHAPTER I.

NECESSARY QUALIFICATIONS.

The question is often asked, What is necessary to become a wing-shot with a rifle? I think I can answer that question with one word: practice; and not so much of that as some people think. When Dr. Carver first came before the public, even some of the best riflemen of the West thought that he was specially gifted, and two of the best shots on the Pacific coast talked the matter over and concluded that it wasn't worth their while to try it. Afterward, they decided to see what they could do, and did a little practicing, all alone, where no one could see them, and to their infinite surprise they found that they could, with a little practice, do nearly everything that Carver claimed to do.

The first thing that led the author to try it was seeing a boy, about sixteen years old, shooting in a gallery at a swinging target. He did so well that, after he went out, the gallery-man was asked "How long has he been practicing?" and the answer, "Only about six weeks" set me to thinking. I had never been a good shot with a rifle; I had always believed the old fogy doctrine that to be a good rifle shot a man must have lots of "nerve," as it is called; or, in other words, to come nearer the truth, he must not have *any* nerve, and must be able to hold the sights of his rifle aligned on an object for several seconds without a tremor. This I had never been able to do; and as I had owned a rifle ever since my boyhood days, and fired a good many pounds of lead and powder away without any very flattering results, I had about given it up, and turned my attention to a shot-gun as the only weapon that I felt sure of hitting anything smaller than a barn-door with, until I saw this young fellow handle a gun. Then I took courage, turned over a new leaf, threw away all the old traditions about rifle-shooting that I had ever heard, and went to work to see for myself if a man who was nervous and had no special qualifications could ever make a respectable score. The result has more than satisfied me, for while I never expect to become a celebrated shot, it has proved to my entire satisfaction and to many others of my acquaintance that there is no particular *gift* required to shoot well.

It would seem, on the whole, that a man of nervous temperament has some advantages in "snap shooting" over others; because he *naturally*

makes quick motions, and this is absolutely necessary in this kind of work. Another thing to always remember in practice is not only to make your motions *quick*, but to put in use enough muscle to have your gun come firmly to your shoulder every time you raise it, and strike the shoulder firmly. Don't be "*dainty*" and "*gingerly*" about your work, but make every motion as if you meant it. Any one of my readers who is at all familiar with military drill will appreciate what I mean. I think that one reason why the regular troops are apt to carry off the prize in a competitive drill is because they are taught and drilled continually on this point, that every motion should be made with *vim*, and if you drill under the instruction of an old army officer for a week, you will find that at the end of that time he will have that so thoroughly impressed on your mind that you will never forget it.

By keeping the above points firmly fixed in your mind, you will see that all that is required in addition is the necessary practice, to enable you to bring the gun to the proper place every time you raise it to your shoulder, and of this I will speak in the next chapter.

CHAPTER II.

FIRST LESSONS.

Your first lessons in snap shooting should be such that you will feel encouraged at the result and not get disheartened, as you are liable to do if you attempt difficult feats.

I think that this is one of the things that has spoiled many a naturally good shot. He would attempt some of the feats of professionals, and, of course, fail, and then give the whole thing up in disgust.

If you have patience to do it, you can take your first lessons in your room, without firing a shot, to very good advantage.

See first, of course, that your gun is not loaded (of this I shall have occasion to speak again further on), hold it in the position of "*ready*" (see cuts 1 and 2), but do not raise the hammer, unless it interferes with your sights, fix your eye on some small object, either in the room or at something out of the window, and bring your gun quickly and firmly to your shoulder, trying meanwhile to have the sights aligned with the object you are looking at. Take it down, and try the same thing over and over again. At first, of course, the gun will not come where you want it to, but you will find that a half hour's practice a day (more if you can spare the time) for a week will do wonders for you, and that the gun will be *almost* where you want it the instant it strikes your shoulder.

This kind of practice you will find to be a great help to you even after you become a good shot and have stopped practice a little while. If you are going out to shoot, take up your gun and go through the motions a few times, and it does you almost as much good as firing.

The first target that I would recommend to the beginner is by all means one that swings, and is large enough and the range short enough so that you can see every time what you have done. A 12-inch target, and a 30-foot range are about right to begin on.

Cut 1.

Cut 2.

Then, when you begin to practice, do not hold your gun to your shoulder, aiming at one end of the space where the target swings and wait till it has come back to that point two or three times before you shoot. This is one of the most common errors that beginners are apt to fall into, and nothing could hurt you more.

Bring the gun to your shoulder and *try* to have the sights come to the right place, as I have said before, when it strikes the shoulder; but when it

does strike the shoulder, don't fail to pull the trigger. If you fail to hit the target the first few shots, never mind, but go ahead. Get into the habit of firing when you ought to fire and this very thing will nerve you up to your work.

A great many will tell you that a good shot never sees the sights on his gun, but shoots by instinct. The instinct that all good shots have is the instinct of bringing their gun to the proper place when they try, and right there the "instinct" part of the business ceases, and in one-quarter of a second they have time to adjust the sights and then pull the trigger. That is another thing that is done by instinct—pulling the trigger. You will find that after some practice you will pull the trigger without knowing it, and without any apparent effort, just as you would move your hand to catch a ball that was thrown to you.

A few hours practice at a swinging target will show you that you can get nearer the "bull's eye" each 100 shots that you fire, and you will soon want to try your hand at something else. Before leaving the swinging target, extend the range, if possible, to 75 feet by degrees, say 10 feet at a time. Try hitting it at different points in its flight; I mean, say put in 10 consecutive shots just as it passes the center, and then try to hit it just as it is half way between the center and the end. This will show you whether you are falling into the habit of shooting at it at one particular point or not, and help to break you of that habit.

Another good thing to practice is "call shots." Stand at the score with your gun at "*ready*," and have some one call for you as follows: He first asks you, "*Are you ready?*" You answer "*Ready!*" and he then calls, "*One, two, three, fire!*" His counting and the word "*fire*" should not occupy over one and one-half or two seconds. At the word "*one*" you bring your gun to your shoulder, and before the word "*fire*" is entirely spoken your gun should be discharged. This is one of the best things to practice that I know of, especially at a swinging target. You have to shoot quick, and you do not know where the target will be. This is another place where you do not want to take your gun down from your shoulder and say, "I couldn't get on to it that time." Shoot whether you are "on to it" or not, and keep shooting till you can get somewhere near the center. I will venture to say that before you have fired 300 shots in that way you will find no difficulty in bringing your gun so near to the right place, at once, that the majority of shots will be fired in the "called" time without trouble.

One reason why I would urge you to always shoot as soon as the gun comes to the shoulder is, that it will get you very soon in the habit of pulling the trigger unconsciously, and that is one of the necessary things to learn in quick shooting, as stated before. After you have learned to shoot fairly well at a swinging target it will be time enough for you to begin at objects thrown up in the air. And before leaving the swinging target I would advise shooting at a smaller object than the target that you began on. A small, round or

pear-shaped iron ball, say 1 inch in diameter, at 30 feet, is a good thing to try after you have gotten so that you can hit the bull's eye pretty often.

And as soon as you begin this kind of shooting, you will see the reason why I have advised you to begin at something large enough to see where you were shooting. You will come in some day when the conditions of light are a little different from what you have been used to, and go to shooting at some small object like the above target and will miss it ten or twenty times, and very likely feel disgusted with yourself or the gun, or something, very much. Now go back to your old big target again, and shoot as rapidly as you can 10 or more shots, without stopping, and then look at them. You will very likely find that you have made a very fair score, if you had been shooting for a cluster, as it is called, or trying, in other words, to see how near you could "bunch" your shots, but you have also been shooting either too high, or too low, or to one side. And as soon as you find out the trouble you will go ahead at the small target again and make a good score. A few lessons like this will give you confidence in yourself, so that when you get out and begin to shoot at objects thrown in the air and fail to hit them for a few shots, when you think and almost *know* that you are holding on them, you will not throw the gun aside in disgust, but will go to experimenting to find out the trouble.

It cost me a great deal of worry and trouble to find out all these things for myself; and I have gone out and fired 50 shots and not hit a thing, and gotten mad and disgusted, only to find that I was holding right all the time, but my sights were not right for the light, or something of that kind. Further on I shall have occasion to say something about the light on rifle sights under the appropriate heading.

CHAPTER III.

TARGETS.

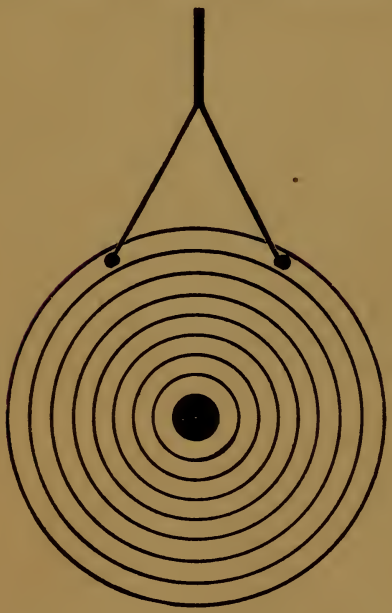
If you are where there is a good shooting gallery, in a large city, the question of targets will not bother you much, as they will have a good supply of all kinds.

But probably a large number of my readers will not be so situated, and then the expense of learning to shoot in a gallery is a thing that deters many a man from the pleasure; so I will try to write this chapter as though you had no gallery to go to, and give you the benefit of some of the different targets that I have seen.

For a swinging target, you can have cast at any foundry a disc, from 12 to 14 inches in diameter, with a bull's eye 1 or 1½ inches in diameter. The plate should be at least ½ inch in thickness, so that it will not break easily,

and should be convex, that is, it should slope back from the bull's eye to the edges. If it is cast *flat*, and you shoot at it at short range, the bullets will *spatter*, and you will be likely to loose an eye.

There should be rings cut into the pattern, from ½ inch to 1 inch apart, so that you can readily see how near you are getting to the center. The rod that it swings from should be of iron, and, if possible, at least 10 feet long. This will give you a good long swing to your target. There is one peculiarity however about a swinging target that few people realize, and that is, that whether it has a swing of 3 feet or 10 from one end to the other, it takes the same length of time to swing across; that is, there will be just as many beats



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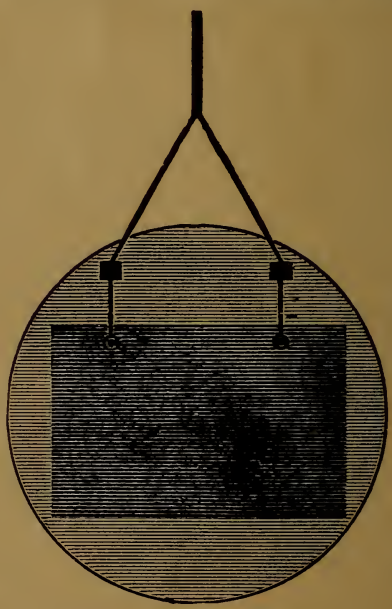

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to the pendulum in a minute when you start it as there are just before it stops. But when it has a long swing it goes faster, and is therefore more difficult to hit.

Near the top you should have two holes, and run bolts through these that will project two inches behind the target, from these you can suspend a flat piece of steel, say 8 inches square and ⅜ inch thick, for a bell, and you can also have the rod that it swings on split at the bottom and fastened to these bolts. This is better than having the rod fastened in one place at the top, for if you do this it will turn around sideways to you when you hit it near the edge. The accompanying cuts will show you perhaps better than this explanation.

After each few rounds the target should be covered with white paint.

When you get so that you think you can hit something small, go to a hardware store and get a carpenter's plumb. If you have your target (the small one) dark and your background white, you will find it much easier to hit.

When you begin to shoot at glass balls, if you wish to use a trap, the best one for the least money, that I know of, is made as follows: Take a box, say 8 inches deep, 20 inches long and a foot wide; on this fasten a coil spring, as shown in the illustration (see cut 8), put the spring on a block about 3 inches thick and run a staple through the coil, to keep it firmly in place, fasten one end down with another staple, and on the other end of your coil

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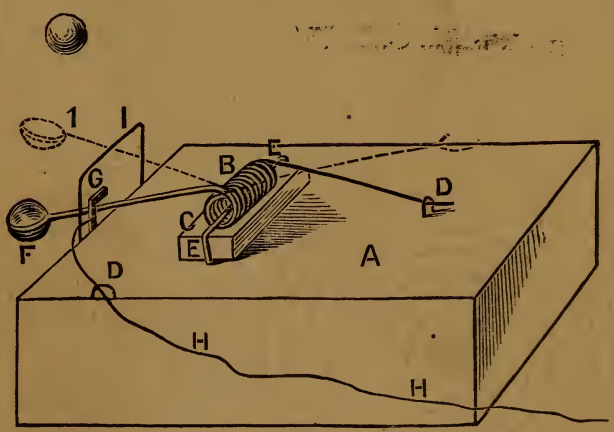


Cut 8.

spring have a cup to hold the ball. The coil spring should be of material at least as large as a large lead pencil, and each end of it about 14 inches long. The *coil* should be near the end of the box, so that when set ready for use the cup will be below the edge of the box; then when it is sprung the cross piece that is shown in the cut will catch it when it is just about on a level, and your ball will go nearly straight up in the air. If you wish to throw the ball away from you, you can have this cross piece moveable, so that you can raise it as high as you wish, or set it back nearer the coil, and get any angle with the ball that you desire. This, if it is fixed right, will throw the ball as high as it is necessary, but, as before stated, I think it is better to have the balls thrown by hand.

You should always remember this, however, that unless the man who handles the gun is careful, the man who tosses the ball is in a dangerous place. In shooting at objects thrown up by hand to fall perpendicularly, I am always careful never to lower the gun to a level with the head of the man who tosses the ball. This is the only safe rule to follow when the balls are thrown in this manner. Of course, when they are thrown to one side there is not this danger. You cannot be too careful in all this kind of practice to never point your gun at those who are assisting you, and if you are tossing the ball yourself, keep a sharp lookout at the man with the gun; and if he lowers it carelessly a few times, and does not take warning when you speak to him about it, just drop him, and shoot with some one else.

There are many other targets used in a shooting gallery, but I think those already given will be ample for all practicable work. Under the heading of "Some Fancy Shooting," I will give you a few others.

CHAPTER IV.

SHOOTING AT OBJECTS THROWN IN THE AIR.

When you begin to shoot at objects thrown in the air, follow the same rules that you did in beginning at the swinging target, that is, hold your gun at "ready" till the object is thrown, and shoot at something large enough so you can see where you hit; and the nearer round the object is the better.

For instance, if you throw up a stick a foot long and an inch in diameter and throw it so that it will whirl, it will look like a large object, but you can readily see that you can put a ball three-fourths of an inch from the center and still miss your target. Either a round ball or a round, flat disc of wood thrown so that the flat surface will be toward you, are good objects to begin on. The size at first is immaterial so long as you get them large enough. Try a disc 4 or 5 inches in diameter to begin with. You can very easily reduce the size when you get so you can hit this—and see at first how near the center you can come. Remember also that it is easier to see and hit a dark object in the air than a light colored one.

I well remember that after I had gotten so I could hit a dollar thrown in the air quite often, I tried my hand at eggs; the distance was quite short, but, as we had only brought a small basket full, and the ground was rather hard, I didn't make much of an impression on my friends until the earth had broken most of the eggs and I began to shoot at small clods of dirt.

In your first practice at the swinging target I have advised you to shoot at the target anywhere and not get into the habit of trying to catch it at the

end, but in beginning to shoot at objects thrown in the air, I would advise you to shoot at them just at the turning point as they are poised in the air and before they begin to decend. I do this for two reasons: 1st. Because they are easier to hit at that time, and 2nd. Because it insures promptness and rapidity of action.

You will find that you have no time to waste. Your object should not be thrown over 15 or 20 feet high, and you will soon realize that to get your gun to your shoulder and get it properly sighted from the time the ball or disc leaves the throwers hand, until it is poised in the air, needs a full and free play of all the muscles. If you wear a coat you will want it loose enough so it will not interfere with your motions, and fit you well enough so it will not interfere with your gun, and if it is summer time you will not only find it convenient to "shuck your linen," to use a Kentucky phrase, but will probably loosen your shoulder braces and throw them off in addition.

Still you *have* plenty of time if you do not waste it in false motions, and here you will realize perhaps more than ever before the amount of good that the practice in your room has done you if you have tried it. As the object is thrown your eye follows it and instinctively the gun comes to the shoulder, in an instant, without any *hitch* and without hitting your coat, it comes rapidly up, and just at the right instant you bring it firmly back the fraction of an inch, and lo! it is pointed *almost* where you want it. All by instinct your muscles have been governed by your eye, or what you have seen, now for the first time, as the sights come up in line your eye catches them, and you change the position of your gun a trifle, perhaps it is aimed only half an inch out of the way; the sights and your target blend; before you realize it your finger has pressed the trigger, you see a bright stream of fire and while the smoke wreathes curl from your gun and before the target has struck the ground, you know that you have scored a center shot.

After you have gotten so that you can hit small objects thrown perpendicularly up in front of you and at short range, hitting them just at the turning point, as I have said before, begin to try other things, but in all your practice stick to one thing till you can do it fairly well. Don't get smart too quick; I have no doubt that some one will read this book and say "Why that is simple enough, any one can do that," and so think they can hit a nickel in the air as soon as they have bought a gun, and perhaps go out and try it for their first lesson. They will probably be somewhat disappointed, for while it *is* easy if you will follow the instructions I have given you, and you can learn without trouble in the time specified, you bad better stay at home and not try to learn than not to go at it right, and I can not impress on your mind too strongly the necessity in everything connected with shooting, of paying attention to the smallest details; usually they are the *secret of success.*

I cannot illustrate this better than by a short anecdote of a good wing shot in California: He attended a match where a man, whom we will call Brown.

was shooting, the range was short, and Brown was having things pretty much his own way. After watching him shoot for awhile my acquaintance offered to shoot him a match at 31 yards rise, I think, one barrel, for $500. They shot the match and Brown was beaten. Now for the reason: My acquaintance offered to shoot the match. He watched for Brown's *wads*, and found that they were all blown to pieces. He knew by this, that Brown was not getting the full strength of his powder, and that at long range all he could get would be feathers. You hear a great deal about powder, how much to use and the kind, and how to load it, and what kind of shells to use, and how much shot, and a lot about chilled shot, and soft shot, and whole pages of talk about the best kind of a gun, but I will venture to say that not one man in twenty who shoots a shot-gun will pay any sort of attention to his wads. And I will also assert that there is nothing about loading or shooting a shot-gun that is really of more consequence in successful shooting. So it is about a rifle. Pay attention to all these small details I have been giving you, and you will be satisfied with this book and with yourself, which is of far more consequence.

Some of the best shots to practice after you have mastered the above are as follows:

Have some one stand near your side and toss a ball out in front of you, rising say to the height of 20 feet and falling about 60 or 80 feet away. This is much better than shooting from a trap; for if you get used to shooting from a trap you will soon look for the ball in one particular place every time, and of course get into a bad habit. Then toss the ball away from you, but not so far, and try to hit it just before it strikes the ground. Then have it thrown over your head from behind. In fact, try hitting it thrown in as many different ways as possible. A good target to use and one that will stand a great deal of wear for this kind of work is a solid rubber ball, about the size of the glass balls. You can tell when you hit it by the way it jumps, even after it is so shot to pieces that you cannot see where it was struck. Mr. Horace Fletcher, of San Francisco, has invented a bell-ball that rings when hit, and will stand a great many shots before becoming useless, but will not stand anything larger than a 22-calibre ball.

If you use a repeater, take a small cardboard box—an empty cartridge-box is a good thing—and put it on the water about 25 or 30 feet away. Shoot *just* under it the first time, and if you shoot at the right spot it will *jump* into the air 2 or 3 feet. Now try to reload and catch it in the air before it touches the water again. Probably, the first time you try it, one box will be enough to last you for the trip; but it is good practice, and, as in your other practice, you will be surprised to find what a few hundred shots will do for you.

In Chapter III, entitled "Targets," you will find how to make a trap, if you wish to use one, and also something more about different targets to use in

quick shooting; but I think, on the whole, that an object thrown by hand is about as good to practice at as anything, because there is always that delightful uncertainty about just where it is going, that lends novelty to each shot.

CHAPTER V.

WING-SHOOTING.

It is with a good deal of hesitation that I write the following chapter. Because I have not had the opportunity to practice it that I have long desired, still I have shot enough birds on the wing to prove conclusively that it is practicable with a rifle.

About the first shooting that I tried on the wing was at blackbirds. I fired at least 100 cartridges at them as they were flying close around me without getting a feather. What the reason was I could not imagine until long afterwards. I held as near point blank on them as possible, never thinking that at so short a range I would have to make an allowance and shoot ahead of them,

Some time afterwards I made a visit to the Pacific coast, and while there it was my good fortune to meet Dr. Geo. Chismore, of San Francisco, one of the best amateur shots and most genial gentlemen on the "slope" or anywhere else, for that matter. In talking with him about it, he gave me his experience in gull shooting, which I take the liberty to quote. He was using a Winchester Express, which carries an extremely heavy charge of powder and a light ball, the intention being to send the ball with great velocity. He had not been able to hit gulls at 50 or 60 yards, although he had fired a great many times. One day he was shooting at them and fired at one about 150 yards away, I think, and just as he pulled the trigger his left foot slipped. He was standing on a slippery rock at the time. It was too late to stop, and the gun went off. To his extreme surprise he killed the gull. The gun was pulled ahead about six feet, he thought, and he told me that this incident opened his eyes, and that after this he hit a number of birds at from 75 to 150 yards. I had the pleasure to accompany the Doctor and Mr. J. A. A. Robinson, another splendid shot and very pleasant gentleman, to Saucelito, on the bay near San Francisco. Profiting by the Doctor's experience, I managed to bag a respectable number of birds; and since then my wing shooting has improved very much, but it was hard for me to realize that so many misses were due to shooting behind my game until I had proved it in a good many ways.

If you are near the water where birds are flying, one of the best ways in the world to post yourself is to shoot at them as they skim along the surface. Take swallows, for instance. They fly quite rapidly. Carry your gun along with them and fire point blank at them. As the ball strikes the water you will be astonished to see how far ahead of the splash the bird is.

Now, by successful wing shooting with a rifle I do not mean that you can go out and bag as many birds with it as you could with a shot-gun. This is out of the question. But it is more genuine sport for me to go out and get a brace of birds, killed with my rifle on the wing, than it would be to shoot a dozen with a shot-gun. Neither do I think you will be able to shoot many quail or ducks on the wing, although Miss Lilian Smith, of California, has made a big bag of ducks in a day, shooting many of them on the wing, with a little 22-caliber rifle; but she is probably the best shot with a 22-caliber gun living. There is no reason, however, why you cannot get so that you can shoot birds that fly more slowly and are steady in their flight such as prairie chickens, geese, brant, pigeons when sailing, crows and hawks, and very likely you can get such ducks as Mallards, which fly slowly and steadily.

An incident that amused me very much and illustrates what I wish to make plain in the difference between a sportsman and a pot-hunter, occurred in Nebraska a short time ago. An uncle of mine who was brought up in the West and shot deer and wild turkeys in Illinois before it was all fenced up, went out to Nebraska to visit his son. E—— took the old gentleman out to shoot a jack-rabbit. He had a very large and swift dog that would give a jack a good race, and he put his father where he thought he would get a good shot when the rabbit started. They soon found one, and he came like a scared streak of chain lightning, with the dog close to his heels down past my uncle. That worthy gentleman stood still in his tracks and never raised his gun.

"*Why didn't you shoot that jack-rabbit?*" shouted E——.

"*Shoot that rabbit! Why, boy, I would rather see that dog run that jack-rabbit than shoot all the jack-rabbits in the State of Nebraska!*" was the answer that came back. The answer showed the "*sportsman*" more plainly than anything he could have said. He wasn't a pot-hunter, and wasn't out for "meat."

In your wing-shooting there is no rule that you can go by regarding the distance to hold ahead that I know of but practice. You will find plenty of good shots with a rifle, and men who can shoot well at objects thrown up in the air that will tell you that it is useless to try it. Remember that a few years ago these same men would have told you it was impossible to hit a silver dollar thrown in the air. Don't pin any faith to "what you *can't* do" until you are perfectly satisfied from personal experience that it is beyond you.

CHAPTER VI.

THE CARE OF A GUN, AND HOW TO HANDLE IT.

The first thing I would impress on your mind in taking care of a gun is to always handle it as though it were loaded. That is the *only* safe rule to follow, and if any of my readers have ever been so foolhardy as to point a gun at any one in fun I hope it will be my good fortune never to meet them, for I should hold them in utter contempt and not be slow to express it.

At some time in your life, if you handle a gun much, you will probably have it discharged accidentally in your hands, and if this ever occurs you will see the force of my advice. If it is pointed where you would naturally point it if you expected it to go off, no damage will be done; but if you are pointing it at some friend or your wife or mother, the result will be quite different. The longer I handle a gun the more afraid I get of it, and the more disposed I am to hunt alone, or with only one or two others. This is not a temperance essay, but I will say right here that I would not under any circumstances go out in the field with a man who got drunk. If a man thinks he has lived long enough, let him "shuffle off decently and in order," but for Heaven's sake don't let him be killed by some fool that thinks he is a sportsman and goes out so drunk that he can't tell his friend from a jack-snipe.

There are several positions that are all safe and good to carry a gun in when in the field. I usually carry mine over the right arm (see cut 3) with the muzzle down, and can always get it to my shoulder in time, and in this position the triggers and hammers are protected from brush, etc. Always carry it with the muzzle pointed well up in the air or down toward the ground. And if you are walking and fall, pay more attention to your gun than you do to yourself. You had better take the risk of getting a few bruises than shoot some one ahead of you, or than to jamb the muzzle of your gun in the snow or mud, and fire it off and ruin it.

Another thing: In these days of breech-loaders there is not the slightest necessity for carrying your gun loaded when you get into a wagon, or in keeping it loaded about the house, unless you keep it so for burglars, and then keep it where the idiot who "didn't know it was loaded" can't get hold of it.

Perhaps it may seem foolish to some one who reads this that I should take so much space to say something that every one ought to know for himself, but I think all those who are quite familiar with a gun will join me in saying that it doesn't do any harm to keep this question of safety always prominent, and that it is not space wasted in a book like this.

In taking care of a gun you can't keep it too clean. If it once gets spotted inside it will be likely to remain so. In shooting a 22-caliber rifle

I use a magazine-gun—I clean it out after emptying every magazine, if I am shooting right along. If I am going to lay the gun aside for a few hours, I clean it even if I have only fired it once. A good many will tell you that powder is a good thing to leave in a gun. If you fall into that habit you will find it the best excuse in the world for not cleaning your gun sometime when you are too lazy to do it, and the gun will stay with powder in it for a month.

Cut 3.

There are many preparations that are good to keep a gun from rusting. I have usually used Rudolph's, which is advertised in most of the sporting papers. I presume there are others that are equally good, but having tested this, can recommend it.

Many good sportsmen say that you should never use water on a good gun to clean it. If you will use *hot* water, and then dry the gun thoroughly afterwards and put on a good oil or rust preventer, it will not injure it; but

if you leave it damp you had better not use water at all. Turpentine and oil, about half and half, are used by some to clean with, and answer very well. Always use a nice, clear oil that will not gum; a good jeweler always has it on hand.

I usually carry with me for my 22-caliber gun a brass rod, with notches cut in it, that will just go into the gun with a patch about ¾ of an inch square of canton flannel on the end of it, and oil a lot of these patches and carry with me. The end of the rod is square, and notched back about an inch, half of the notches pointing one way and half the other (see cut 4); in the other end of the rod is a ring, and I fasten a snap on my vest well back toward the left arm, and as high as I can, to snap the rod into; in this way it does not interfere with my shooting, and is always convenient. While your gun is still warm with firing it is an easy matter to clean it with two or three of these patches.

If you use a larger caliber gun, I would recommend for all field-cleaning the regular field-cleaner, which is made of a strong cord, with the wiper at one end and a heavy "sinker" at the other, so you can drop it through the gun and then pull the wiper through.

No matter how dry a place you have for your gun, it is always well to put a tompkin, or an oiled rag in the muzzle, and an oiled rag in the breech, and, if possible, keep your gun where the temperature is even. You can readily see that if the gun gets very cold, and then the room where it is kept is heated to a high temperature, the gun will "sweat," and of course the moisture will rust it after awhile.

If you want a gun to hang up in your room on a pair of antlers for an ornament, get some old Queen-Ann arm that was used in the Revolution. It will answer every purpose, and be a great deal better than ruining a fine gun.

CHAPTER VII.

YOUR GUN.

I shall not enter into a discussion of the relative merits of large caliber rifles, even if I thoroughly understood the subject, which I am perfectly free to confess I do not; it would take a thousand pages in a book of this size to begin with, and by the time it was written perhaps some one would get up a gun that would be so much superior to those written about, that the whole subject would have to be written over again.

For my own shooting I began with a 32-caliber, 15-inch barrel, Stevens, because it was compact and I could carry it without trouble in an 18-inch valise, by taking off the barrel. Where I going to purchase again for the

same purpose, I do not know that I would make any change except in the size caliber. I think a 22 would answer every purpose and not be as expensive to shoot.

The 22-caliber, 15-inch barrel, Stevens, is a weapon not to be despised, and is used in some localities for deer shooting. There are other good guns of the same kind, but I have never used them. I have heard the Wesson spoken of very highly by men who were competent to judge, and know it must be a good weapon.

There is one thing about the Stevens, however, that needs watching, always, if you hand the gun to any one who is not familiar with it. The hammer, when you start to let it down, starts very slowly, and one not accustomed to it would suppose, perhaps, that it had caught, and so loosen the grasp with the thumb. As soon as it gets past a certain point it gets the full force of the main spring and then away it goes. I have had it accidentally discharged in my hands once or twice, and I try to be exceedingly careful. I do not know whether it could be remedied without trouble or not, and have sometimes thought of writing the manufacturers about it. But as long as the gun sells as well as it does I suppose it would be useless to do so, as they are no doubt advised every day how to alter the gun so that it will be a success, and having been engaged in the manufacturing business some time myself, I have more sympathy for that class of people than I otherwise would, perhaps.

I wish to say in this chapter a good word for the Ballard. I have seen one of these guns that had been used in a shooting-gallery for years, but which had been taken care of in the mean time, that would shoot as true as it was possible for a gun to shoot of that caliber. I mean by this that it was absolutely correct at short range. How many times it had been fired I do not wish to state, as the estimate its owner gave me astonished me a great deal. I have also seen several others that were apparently worn out to look at the outside, but which did as good work as ever.

There are plenty of 22-caliber guns on the market that you can take your choice among, only don't get any cheap $6.00 gun, and then wonder that you cannot hit anything. Pay enough for a gun to secure a good one.

I used the little Stevens for over four years constantly, until I had the misfortune to bulge the barrel, and then I was in California and fell in love with a 22-caliber Winchester that was made by Kline & Carr, of San Francisco. They take the 1873 action from a Winchester gun and put on a Ballard barrel, and a magazine, block and firing-pin of their own. The general appearance of the gun is similar to the new 22-caliber Winchester, but the firing-pin is split and has a bearing at the bottom to hold the edge of the shell up, as well as the extractor at the top. Then the block is higher than the Winchester, and in the magazine they have the spring outside of the reservoir,

instead of inside, which gives them a better spring, I think. At any rate, I like the gun much better than any Winchester I ever shot, and can shoot it more rapidly. As they have to make the guns by hand the price is $40.00, and that is m re than a good many would care to pay.

I have never fired it at a target a great deal, but remember one score I made after I had shot probably 300 shots with it. I fired at a swingingtarget, 30 feet distant, in motion, 1 inch bull's eye, 4 of the cartridges failed to explode, and out of the 21 which did go, I made 10 bull's eyes, and the others were from ½ to 1 inch away on each side of the bull's eye, time 29 sec. I do much better with it now no doubt, but thought that good enough at that time.

The new Sharps is highly spoken of by those who have used it, and I have seen some very fine work done with it, but have never tried it, as I cannot afford unfortunately to buy every gun that I like the looks of.

I think for your first lesson a single loader will perhaps do you as much good as a magazine gun, and by the time you get tired of that, as most people do of the first gun they buy, it will be easier to decide whether you care for a magazine gun or not.

I like mine very much, and as it only weighs seven pounds, my wife shoots it without any trouble, and that is one of the pleasant things about shooting, to have your wife or sister, or some other man's sister shoot with you, and I think it would be well in the age in which we live for every lady to be familiar with firearms. She may never have occasion to use them, but if she does she will know how.

If you go out after birds a magazine gun will of course afford you a deal more amusement than a single loader, as you can almost always get two or three shots at a bird, and it is needless to say you will require them for a long time.

There are a thousand things about your gun that you will want to study, and it would be waste time to try to tell you all about them in a work like this. I wish, however, to say something about the ammunition you use.

There are plenty of men even now who will not use a breech loader, because they think they can do so much better work with a muzzle loader. If you hold the gun right and have good sights, and it is in good condition inside, you will be able to do work that you will have no reason to be ashamed of with a breech loader, and the advantages more than compensate for the supposed inaccuracy. There are some defects about factory ammunition, however, that you ought to know.

The 22-caliber long cartridge isn't worth having around, in my estimation. Usually six or eight out of ten, if you shoot them any distance, will be found to strike the target sideways, and when a ball does that it is not fit to use. The trouble seems to be in the shape of the projectile. If you use a long slug you certainly ought to have it well patched, and this applies as

well to large as small caliber guns. I do not think the 22 is made with a patched ball, at least I have never seen them, and do not know that it would be worth while. But the larger caliber cartridges are made in that way, and are a good thing. But if you use a factory patched ball you ought to have the lands in your gun bevelled off at the rear end where the ball goes in, otherwise the square end of the land will tear off the patch from the ball, and in that case it is better to not have any; and it takes a first-class gunsmith to do this and do it well. Some of the manufacturers are making their guns in that way now.

There is no doubt in the world that the round ball gives much better results than the slug, unless the latter is very carefully loaded, but the trouble is to get the round ball. I think that they are now made, I mean the 22-caliber with a round ball, but cannot recall the manufacturer's name, and have never had an opportunity to try them. With a round ball you could use much more powder and get better results than you can with a long or short 22 with a slug. Of course you cannot use them with a magazine gun, but I hope the day will soon come when we can get a good magazine 22-caliber gun that will shoot a cartridge with a round ball and a good charge of powder: for all practice shooting at close range, if you shoot a 32-caliber or larger gun and care to reload your shells, I think you will be well pleased with the result if you fill the shell with powder, have a good wad that will fit it tight and press it firmly down, and then seat a round ball on top of that. You can usually get the balls already made that will fit most of the calibers.

You should accustom yourself to a pull of not less than three pounds on the trigger. The old fashioned hair trigger is one of the things of the past, and is of no earthly account except to jar off and kill somebody unexpectedly, and it has been proven over and over again that you can do fully as good work with a three-pound pull.

By all means have a shot gun breech on your rifle; never mind the looks. If you are going to do good work, and do it quick, you dont want to spend two or three seconds valuable time adjusting an old fashioned nuisance to your shoulder, and when you do get it adjusted it will receive and transmit to the barrel every tremor of the muscles of the arm. Don't buy such a gun, and if you already own one and cannot get the stock altered over, get a saw and cut it off, it may not look quite as handsome, but you can shoot with it.

CHAPTER VIII.

YOUR OUTFIT.

It would perhaps seem that the first thing to be considered in this chapter would be what gun to use. But as I have written one chapter on that subject, we will suppose that you have your gun.

Undoubtedly a great many more would shoot if they thought they could afford it. Now if you go at it right perhaps you *can* afford it. If you do not feel like bearing the expense alone get some one to go in with you. If you are in a city where you cannot possibly get out into the country to practice, a few of you can easily club together and fix up a shooting gallery of your own. A room in a basement or an attic can be fitted up quite cheaply. You would want a good bulk-head, a few lamps with tin reflectors, a table or counter, and that would be about all the expense except the rent of your room. If you are where you can get out in the country, a range out of doors is much better. For, in addition to the benefits of getting out of doors, you will get just the light that you will when you go out to shoot game, and will soon get used to the changes on your sights.

A couple of swinging targets, such as are described, ought not to cost at the outside over $1.50 to $2.00. Your bulk-head can be built of any kind of old lumber or slabs. It should be built double and filled in between with a few inches of earth, cinders or anything of the kind that will stop your balls. It is, of course, impossible to tell in different localities what this will cost. Your trap, as given in the previous pages, ought not to cost you over $1.50.

This is really all that you need, except of course your gun, and this expense divided between two or three of you will be very small. Another great saving is to buy your cartridges either in case lots or in large enough quantities so that you can get low prices on them. In some places they will charge you fifty cents per hundred for 22 short caliber, while you ought to get them in 1000 lots for twenty-five cents per hundred (at present prices, this is written in 1885), or in larger lots by the case at a little less. At these rates, if you go to a range of your own, you can afford to shoot a great many rounds every time you go, and this kind of practice will benefit you.

If you havn't much money to spend and go to a gallery and pay five cents for two shots your 1000 shots would cost you $25 00 (twenty-five dollars). It is no wonder that ordinary mortals who work for a living can't

afford to learn to shoot if they have to pay such prices. At some of the galleries they make quite a reduction if you shoot much, but the average gallery man can't get it into his head that it would pay him to let men shoot 100 rounds for anything under about $2.00, and in order to become a good shot you ought to shoot at least that much or more every day for a month. By the end of that time you will probably be so well satisfied that you will find some way to continue.

If you wish to spend money for a field outfit I would advise you to get a sleeveless coat and a jacket with sleeves to match. These are advertised in all the good sporting papers, and are made of material that will cost you probably from $3 00, for cheap duck, to $25.00 or over for the finest grades of cloth that are usually used for this kind of clothing. In color have something that will not be conspicuous in the fields where you hunt. You can probably leave this to the manufacturer of such goods unless you know exactly what you want. Your hat or cap should be of the same kind of material or color. There is nothing that game will see farther than a black hat. For all ordinary hunting I prefer a light pair of high-topped leather boots that are prepared to keep them water-proof by some of the articles that you can find in any good sportman's emporium or advertised in any good sporting paper. These I think are much better than rubber boots, unless you are going to stand in the water all day. If you do wear rubber boots get them large enough to wear a mocassin inside them, this will prevent their chafing your feet and help in some degree to absorb the moisture.

This is a subject that just at the present time I feel very positive about, as a short time ago I went on a hunt and was obliged to wear a pair of rubber boots that were too short for me or else have wet feet, as we were in water several inches deep most of the time. The result is that I have lost the nails from both my big toes, which isn't half as much fun for me as it is for my friends. I am ready to start on another hunt to-morrow, however, if I had the time.

If you are going to go west on a regular deer hunt, I would advise you to read "The Still Hunter," by Judge T. S. Van Dyke, it is one of the most useful and entertaining books that it has ever been my pleasure to read. It gives you the best of advice, among other things, about what to take on a hunt and what *not* to take. The fact of the matter is the majority of men when they start on a hunt think it indispensable to carry about three trunks full of stuff. Try and see how little you can get along with besides the clothes you wear, and the longer you try the less you will find it necessary to carry. My friend, Dr. Chismore has made a hunting trip on the north-west coast of America of three months duration, and, as I recollect it, the only extra baggage that he carried was a pair of light blankets. So you see that an outfit need not be very expensive.

CHAPTER IX.

RIFLE SIGHTS.

There is so much in properly sighting a rifle, and so little that is really known and appreciated about it, in regard to the necessity of having a gun properly sighted, by the majority, and it is such a wonderful field for study, that I dislike very much to write this chapter.

I wish to say at the start, that I will simply give the results of my investigations so far, and hope that you will derive some benefit from them. I have for a long time been studying rifle sights and expect to be for a long time to come, and any man who says he has arrived at perfection in the matter, and can make a perfect sight for all kinds of shooting, is simply theorizing about something that he has never tried.

In your snap-shooting the question of the point blank, at which your rifle should be sighted, does not cut much of a figure. You will probably do most of your snap-shooting at close range, and your point blank should be at close range. If you are going to shoot at game or objects up to 100 yards, don't sight your rifle at over 75 or 80 yards, and use a gun that will give you as flat a trajectory as possible.

I think that there is nothing worse in the line of rifle sights than a combination of a glittering sight in front that comes up to a knife edge at the top and the old-fashioned buckhorn sight for the back sight. Take such a set of sights as this and shoot five shots toward the sun, and as many at each of the other points of the compass on a bright day, and compare the targets and note the result. One way you will shoot over, another under, another to one side, and so on, all owing to the reflection of light from your sights. When a boy I used such a set, and I could get a "bead" as fine as the point of a cambric needle with them. At least it would appear so, but I always had to make so much allowance for which side the light struck that my shooting was very uncertain.

You will probably get used to some set of sights and do good work with them, but keep your eyes open and be ready to adopt what is clearly proved to be in advance of what you have. A front sight should be broad, and especially in all quick shooting should you accustom yourself to a broad, large front sight. You can do just as fine shooting, and in quick shooting

you can catch it much quicker. A good front sight that I have used I saw first in California, used by Dr. Chismore. It is made as follows:—

Cut 9.
Front Sight, Back View.

Cut 10.
Front Sight, Side View.

A piece from a silver quarter or half dollar filed down smooth on the sides and edges. The cuts 9 and 10 show the shape better than it can be described otherwise. The height will have to be determined entirely with regard to the shooting of your gun. Try the sights that come with the gun, and make your sights either the same height as these or higher or lower as may be necessary. The sides of this sight want to be perfectly black, so that the light will not reflect from them. This you can probably get a jeweler to do for you cheaper and better than you can do it yourself. Then the top wants to be bright. Do not burnish it, but have it white, I mean. If you were going to shoot on the snow all the time, a sight of the same shape made of pure copper would be much better.

For your back sight put on in place of the "crotch" or "buckhorn" sight a plain oblong bar of dead black iron, nearly as long as your gun barrel is wide, and about three-sixteenths or an inch deep and wide. Into the back side of this should be set a piece of platinum wire (see cuts 11 and 12).

Cut 11.
Rear Sight, Side View.

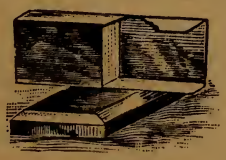
Cut 12.
Rear Sight, Back View.

It can be dovetailed in and flattened, coming to within a thirty-second part of an inch of the top, and running down to the bottom of the sight. The width of this sight will have to be governed entirely by the width of your front sight and the length of your gun barrel. It must, of course, be narrower than the front sight, as the intention is to have them *appear* just the same width when you look over the barrel of the gun at them. The line of dead iron at the top of the bar will always enable you to keep the two sights distinct, and they will never appear to be one and the same piece. The advantages of having a rear sight that is flat on top are manifold. One of the most important things in shooting at any distance is to have your gun level and with a flat sight to look over; it is much easier to accomplish this than

with a sight that is notched. It is also much easier to tell just how much front sight you are using than with the old "buckhorn."

The sight is a combination of the platinum wire and a sight that Judge Van Dyke uses. His rear sight is simply the iron bar, say half an inch long, and he has no notch in it, and no wire on the back to aid in finding the center. I have tried this sight a little, but must admit that I have not tried it enough to say that I could not get used to it; there are certainly great advantages about it. Judge Van Dyke is one of the most thorough students of rifle shooting living, and has adopted this rear sight after much careful research and experimenting, and it is well worth your while to give it a thorough trial. For his front sight he uses an oblong sight that is composed of iron in the center, gold, brass or silver at one end, and ivory, bone or agate at the other. If shooting on the snow, he would turn the end with the gold toward the eye; if shooting on bare ground, the other end; and if he wants to use the iron in the center, he can easily take off the ivory. They are fully described in the *American Field*, of October 17 and 24, 1885.

A front sight that I have heard of but never seen I will try to describe. An oblong peice is set into the cross-iron that holds the sight in front, about one-sixteenth of an inch in width, one-fourth of an inch in heighth, and one-half of an inch long, with the end toward the breech of the gun. This end is cut out to a depth of one-eighth of an inch, leaving a shell all around of one-sixty-fourth of an inch in thickness; this leaves the solid part inside one-thirty-second of an inch wide, and this is enameled a dead white. You can readily see the advantages of this sight in connection with the rear sight, as described—the light would never strike it, and it would always show and never glisten. I am indebted to Mr. Robinson, whom I have previously spoken of in these pages, for this idea, and, although I have never tried it, I am anxious to do so, and think it would be a splendid sight. The cuts (13 and 14) show you the idea, although the proportions are not exact.



Cut 13.
Side View, showing one side and part of the top cut away.

Cut 14.
Rear View.

The aim is to get a sight that will *appear* the same under all conditions of light, and you will never realize the difficulties in the way of doing this till you actually know from experience how much difference there is between shooting on a bright, sun-shiny day and shooting the same distance when it

is cloudy, or between shooting in the woods and open fields. Whatever sights you have, try to get used as fast as possible to shooting toward the sun, away from it, sideways, and in all kinds of weather. Practice will do you more good than books, but even practice will not always enable you to judge just how to hold. This, of course, applies more to shooting at some distance than to close work; but you will go out some day when it will appear to you that the conditions of light are precisely the same that they were the day before, and will find that your average at, say, 100 yards, will be two inches higher, or further to one side, than it was the day before, and the only way to account for it is the atmosphere.

From what I have heard and seen, I think that in California and some other Western States this is particularly true, for there is more apt to be a mirage than in the States farther east.

You will also find that few people see things alike, when it comes to the matter of gun sights; and when your rifle is sighted just right for you, your friend who shoots it will very likely find it all wrong for him.

Then, another thing that you will find is that shooting at a target on a range is a very different thing from shooting at game in the woods and fields. You will soon get used to the ordinary changes of light on your range, but you will never get entirely used to the changes of light that you will find in actual hunting. According to the old theory, a good shot was what was called a line shot—that is, on a line with the bull's eye, up and down—even if it missed the bull's eye six inches at 100 hundred yards. Don't let any such doctrine spoil you. A little practice will demonstrate to you that it is much easier to make a line shot at an *unknown* distance than it is to make a shot that is level with the bull's eye at a *known* distance. Now just remember that you do not need to waste time over shots that you can easily make; put in your practice at shots that bother you.

Whether in shooting up to 150 yards you should have your rear sight fixed, or raise it, or whether you should make an allowance by shooting high or low, or, again, whether you should vary the amount of front sight taken is a great question with riflemen. For my own part I have, of late years, found that I could do better work to have my rifle sighted for ordinary shooting in the field to about 60 yards; then, if I want to shoot 100 yards, as I often do, I can use a little more of the front sight, or, what is better, can hold a little higher, and if I want to shoot 30 or 40 yards I hold a little lower.

A good many make all manner of fun of a man who thinks he can tell anything about the amount of front sight to use to shoot 125 yards when his rifle is sighted for 75 yards. I must beg leave to differ with them. I think that practice will enable you to not only estimate the distance quite accurately, but will also enable you to estimate the amount of front sight to use, and I think that you will find it much harder to estimate the distance than the amount of

front sight. You should always practice this when out in the woods and fields, if you care for rifle shooting. Look at some object ahead of you and estimate the distance, and then, as you walk it, count the steps; you will find the benefit very soon. You should also learn to step correctly a yard. When measuring distance, I can, with a little practice, step off 100 paces, and not miss its being 100 yards more than 3 or 4 feet; but you will be surprised to find how much out of the way estimates of distance usually are in hunting. A man will shoot a quail and say, "Did you see that? Must have been 80 yards;" somebody else says, "All of that." And I don't suppose they mean to lie about it, when they get home and tell about the shots they made at 80, 90 and 100 yards. Now, when you are in the field, just measure these long shots, after you get so you can step a yard each time, and you will probably find the 80-yard shots will mostly fall inside of 40 to 50. A quail 80 yards off, seen over the top of a gun-barrel, is a mighty small-looking bird; most men will let him go undisturbed when he gets that far away. But when you come to close work with a rifle it won't do to say 100 yards when you mean 40, you must have some idea of the distance and hold accordingly.

The Lyman sight is strongly recommended for quick shooting by many. I could never get used to it, and believe that for quick shooting, an open sight is far the best. There are dozens of sights patented, but I think you will find those spoken of in this chapter better than the majority. One thing you ought to be able to do, you ought to be able to give any gunsmith (unless he is a practical rifleman and used to shooting your gun) the dimentions of a set of sights much better than he can get them up himself. If you do not take interest enough in the subject to do this, your rifle shooting won't amount to much. Study the subject, and have a reason that is good for whatever you do. And don't do it because some old antediluvian tells you it is the way, and the only way.

Shooting with both eyes open is strongly recommended by many good riflemen; while I do not think it absolutely necessary, I do think there are great advantages about it. If you will get in the habit of shooting in this way you will soon find them out. Don't say you can't do it, or decide you can't after trying half a dozen shots. What do five or six shots amount to? Try a few hundred, and then you can judge better. When you use both eyes you see things just as you usually do, and when you shut one eye you do not, unless you have had the misfortune to loose one eye. Now, to illustrate this, look at some object that is quite small, say as large as the point of a lead-pencil, or as as large as a No. 5 shot, from a distance of six or eight feet, and then shut one eye and step rapidly forward and try to put your finger on it. A little experimenting of this kind will prove to you that you can see your target much better with two eyes than with one.

Recollect also that the target is not the only thing that you want to see

distinctly. A target, with its clear cut outlines, is a very different thing to see from a rabbit sitting in dead leaves 60 yards away, or a bird's head at half that distance, and when you begin to draw down fine on such an object, you will need all the eyesight that you have, and not only this—you will need a sight that you can depend on. You will be apt to fall into the belief that your game will look like your target, until you get out in the fields to hunt, and for this reason get out as soon as possible, as I have said before, where you will get a natural light to shoot by, and shoot at natural objects. Select some old knot on a tree at some distance that you do not know but can only guess at, and fire five shots at it as rapidly as you can, or shoot at something that blends so with the surroundings that you can scarcely see it when you look at it over your rifle-barrel. This kind of practice will do you more good than anything else when it comes to practical work.

You will find another tendency also, to shoot over in shooting down-hill, and under in shooting up; and your tendency to overshoot down-hill, will be aggravated in quick shooting if you do not attend to it, but that is the very essence of quick shooting. If you are accustomed to the slow, deliberate ways of the ordinary target shooter, and get out after game that is watching you and liable to bid you adieu in about two seconds, you will naturally get rattled, and not shoot nearly as well as usual, but if you are used to shooting in one-half a second, you will feel confidence in yourself, and know that the two seconds are ample time—not that I would advise you to always shoot at game that quick. If you have a long shot to make, and your game cannot see you, take time to calculate the distance carefully, and arrange your sights, but if you have to make a quick shot, and the time *may* come when your life will depend on it, you will shoot quick at any ordinary distance just as well as you would if you took half a minute for the shot, and better.

CHAPTER X.

SHOT CARTRIDGES, AND SUNDRY HUMBUGS.

Rifle shooting has taken such a wonderful advance in the last few years, and so many are getting to shoot well, that possibly this is one reason that the professional has felt it incumbent on himself to do something, or, rather, *appear* to do something, that was next to impossible.

As the public were educated up to the point of doing the things they saw done with a rifle, something else new and wonderful had to be put forth, or else they tired of the exhibition.

So the shot cartridge was invented. Most of them are covered with paper, but I have heard on good authority that those used at first by some of the professionals a couple of years ago were covered with lead. At any rate,

the paper-covered ones are now advertised by a leading house from 22 short caliber, containing about 100 chilled No. 12 shot, up to 50-52 caliber for the Spencer rifle. The 44 caliber Winchester shells are loaded with No. 6 and 8 shot, and are now advertised as suitable, among other things, for breaking glass balls.

It seems a pity that some of the best professional shots should resort to this kind of work to keep up a reputation, when the shooting that they actually do is hard enough. The worst part of it is that they discourage people who would otherwise try to learn quick shooting with a rifle. No doubt new and difficult shots with a rifle will be continually brought out. Don't condemn a thing as a humbug until you know, and, on the other hand, because a man can hit pennies in the air, smash stones, and break one of the pieces again, with a repeating rifle, before it strikes the ground, don't swallow another feat that looks impossible, simply because he *appears* to do it. That is to say, when he gets on a pony's back, and it is announced in grandiloquent style that a man will ride ahead of him and throw up glass balls, and he will follow—both horses being on the run—and break them, take this with a few grains of caution. If the man can really do this with solid balls, he will invite an examination of the cartridges that he uses for the purpose. I don't mean that he will show you a box of cartridges, and then go off to the starting-point to load his gun. I mean that he will give you a perfectly fair chance to see that his gun is loaded with genuine ball cartridges. And when you find a man that does this, and then breaks glass balls thrown up ahead of him, with both horses on the run, I want you to write me and tell me about it, and I will go a long way to see it done. I don't know that it is impossible, but I have very good reasons for believing that it is improbable. There are some other feats of the same kind that need investigation before you put implicit confidence in them. Such as holding the rifle behind one's back and breaking falling glass balls. In all such exhibitions let there be some good rifleman who is well known to examine all the cartridges used, and give the performer credit for what he can really do; but if he tries to humbug you, just drop his exhibitions, and advise your friends to do the same. A few lessons of this kind will perhaps be the cause of more honest shooting in the future.

In the *American Field*, of June, 1884, I think, an article appeared headed, "The bullets Dr. Carver uses for breaking glass balls." It went on to state that a gentleman in Kansas who was at Omaha at the time the Wild West exibition started from there, told the writer that Carver used a "bullet" composed of shot with a covering of lead for some of his more difficult feats. Soon after Carver wrote an alleged reply to the article, which I will quote in full. It is so thoroughly modest and retiring in its tone that it should be preserved.

"CHICAGO, ILL.

"EDITOR 'AMERICAN FIELD':

"Nearly two years have passed since I wrote my last letter to your most valuable paper, and I was in hopes of being permitted to pass the rest of my shooting days in quietness, as the one great ambition of my life—to become a Cæsar—had been realized, and I might say that there was but little left of interest for me in the shooting world, more than to see the young and ambitious sportsman equal, if not excel, me in all the shooting I have ever done. But as the years roll by and no one possesses sufficient merit to take my place, necessity compels me to retain the greatest reputation of any living marksman. I would shout with joy to see a thorough gentleman surpass the best shooting I have ever done a thousand fold and leave me in quiet possession of the great reputation of being the originator of flying shots with a rifle.

"It is very much easier for one to imitate than to originate, and as yet all of my ideas are used by sportsmen, and in seven years I see no improvement over the style of rifle shooting which I first introduced to the world. I followed not in the footsteps of others, but used my own head; and the good sense which it contained has made me what I am. One great fault of some sportsmen is too much ambition, and their desire to become the first man in the world makes them jealous, and this feeling will remain for many generations until the time comes when all lovers of the gun are sportsmen and gentlemen. I expect to be gone before that time, and when I look down from the happy hunting grounds and watch the sports below, I hope to see the then great champion use a solid bullet and not a hollow ball filled with shot, as Howard, of Racine, Wis., accuses me of using. Such a charge as this, coming from such a critic, is most crushing, and I feel that he has fully explained the secret of my shooting and given me dead away.

"I would, with Howard's permission, like very much to dispute his statement and accuse him of thoughtlessness and want of consideration, and being only desirous of gaining a point, he has shown of what his nature is composed and permitted some one to deceive him to a great extent.

"Howard says: 'Carver uses shot and sheet lead in his rifle.' Now, any sportsman in the world will recognize the fact that shot will smash a stone to pieces or shoot a hole through a piece of silver or cause an orange to disappear as if by magic. Wise man, Howard! As he obtained three bullets from one of my servants, perhaps he can produce one of the bullets with proof of his statement if I give him a hundred dollars for it. How bad the other sportsmen will feel to think I have deceived them for so many years, and Howard will get all the credit for his gentlemanly exposure.

(Signed)

"DR. W. F. CARVER."

The article in question did not deny that Carver was one of the finest living shots with a rifle. It said nothing about his "smashing a stone, or shooting a hole through a piece of silver, or causing an orange to disappear as if by magic," with a load of shot, and what the necessity of lugging all that in for is more than I can see. It did say, however, that the writer doubted his being able to hold a rifle behind his back and break glass balls with scarcely a miss. And he might have added that he didn't believe a man could do the horseback feat with a solid ball.

You will notice in Carver's answer that he does not come out squarely and deny that he has ever used such shells, and that he *does not* offer the $100.00 for a sample, but he indulges in a lot of talk about being the *originator* of flying shots with a rifle. Any man who has ever read the literature of our country knows that this is all gammon, and that there were dozens of men in this country who could make flying shots with a rifle before Carver was big enough to carry a gun.

I wish to call your attention to one thing in the above article. Carver says: "One great fault of some sportsmen is too much ambition, and their desire to become the first man in the world makes them jealous, and this feeling will remain for many generations until the time comes when all lovers of the gun are sportsmen and gentlemen." Now I do like to see people take pride in a gun and their ability to handle it well, but if your love for a gun is going to lead you to believe any such nonsense as the above, that your being able to hold it better than any one else will make you the first man in the world, and put you above philosophers, savants, philanthropists, and every one else, you had better throw away your gun and go the primary school for awhile, and see if they can't, by some means, teach you a little common sense.

The Dr.'s modest ways have been so thoroughly and scathingly written up by "Gaucho" and others, that further comment on them is unnecessary. Only remember that when you see him or any one else perform seemingly impossible feats, investigate them.

A few years ago "Prince Otto," as he was called, was the wonder of the Pacific Coast. He was an Indian boy who was said to be specially gifted, and could shoot as well through a screen as he could with everything in plain view. No one was allowed to see his sights or examine his guns, however. And there was among good riflemen an impression that the thing was a humbug from beginning to end. When I was in California, a year ago, I met Prince Otto. He had given up shooting, and was perfectly willing to tell me all about his feats. One thing that he did was to shoot at a polished steel plate and have the ball glance off at an angle and break a glass ball that was hidden from him by a screen. This he told me was honest work, and required more practice than anything he ever undertook. The steel was so

bright that it was difficult to hit the same spot every time; but by constant practice he succeeded in doing it. The feat that *appeared* the most difficult perhaps was shooting through a screen, through the barrel of a pistol behind the screen, splitting the ball on the edge of a razor that was at the rear end of the pistol, and breaking a glass ball with each half of the bullet.

This seemed simply impossible, but "seeing was believing," and hundreds saw him do it. Of course, if the bullet went through the pistol barrel the rest was easy enough. It would split on the razor, and the glass balls being hung in just the proper position would be broken, each by one-half of the bullet. But the thing was how could he hit the "hole" in the pistol barrel? It seems that exactly six inches above the pistol barrel was a tack. He did not tell me in so many words that his rifle was sighted to shoot six inches low at that distance, but I inferred so from what he said. Then you see what an easy matter it was to hold for the head of the tack and "bring down the house."

Another feat that he did was partly humbug and partly skill. A glass ball was suspended from a bar. His gun was laid on the floor, and he was blindfolded. He then took a certain number of steps forward, picked up the gun, turned round three times, took aim—if it can be called taking aim with your eyes blindfolded—and fired. He usually broke the ball, too. Now for the explanation of this seeming impossibility. His eyes were not blindfolded so that it prevented his seeing his feet. When he took the steps forward to where his gun lay he could see it all the time, and when he picked it up there was a place marked for his feet. He stood in just such a position all the time, and constant practice in that position enabled him to hold the gun right from the sense of feeling. It was good shooting, even if it was not all what it appeared to be.

There were a number of other things about his exhibition that were well worth seeing I am told. He went through a Zouave drill that was very fine, and could handle a gun splendidly. You will notice, however, that when he arrived at the part of the exhibition, that was a "gift," it was merely a gift of sleight of hand. So I say to you again, be slow to believe in impossibilities, and when any man comes along and says he is "gifted," so that he can perform feats with a rifle that no other man living can, set him down as an arrant humbug of the first water.

Shooting with a card over the end of the gun barrel is simple enough if you keep both eyes open. You can understand this better by trying it than I can explain it; but by using both eyes you can apparently see right through the card. Also, shooting over the shoulder by the aid of a looking-glass, is as easy as holding your gun out as you usually do.

In holding the gun upside down on your head, remember the *tendency* will be to shoot low.

CHAPTER XI.

SOME FANCY SHOOTING.

I do not think I can begin this chapter better than with an account of the shooting that I saw Miss Lillian Smith, a thirteen-old girl, of California do. I had heard of her shooting, and when at Sacramento had the pleasure of seeing her.

She is not strong enough yet to hold out and shoot a heavy gun, and for this reason it is hard to tell what she will be able to do when she gets older, but I think I am entirely safe in saying that with a 22-caliber Ballard rifle her equal does not exist.

She also handles a Winchester—that made by Kline & Carr, of San Francisco—faster than I have ever seen any one else do it.

When she was nine years of age her father gave her a pony, a dog, and the little Ballard Rifle that she still shoots. After a few days practice about the ranch she went out hunting, and they were very much surprised a short time afterwards to see her return with several birds, two or three jack rabbits, and some other game, I forget what.

The first shot she made for me was a double shot with the Winchester. A ball was suspended a few inches from the ground, and another put in a trap, similar to the one already described in the foregoing pages. It only threw the ball 3 feet high, however, and at the word "ready" she fired at the suspended ball, and at the same instant the trap was sprung, and before the ball struck the floor it was broken by her second bullet.

She then shot at the edge of an ordinary playing card, at a distance of 32 feet, the card being set in the nose of a swinging deer. After shooting at it three times she complained that it was not set straight, and on examination I found she had already hit it twice, and if the card had been straight she would have cut it in two both shots. It was then changed so as to be straight, and at the first attempt she cut it clear through. This shooting was all done by lamplight remember.

An arrangement was then put up by which a ball was swung around in a horizontal circle very rapidly; in fact it went so fast that it kept out almost level with the end of the cord where it was fastened. The circle described was about 10 feet in diameter, and at the second attempt she broke the ball, and then broke two or three in succession without a miss. If you do not think it difficult try it with a *shot-gun* sometime.

She then made a charm for me out of a dime. A piece of soft pine was selected, and the dime placed against it with the flat side toward her, a small, point pricked in the upper edge with a penknife, about $\frac{1}{12}$ of an inch from the edge, showed her where to aim, and if she did not hit it in just that

particular spot; the dime was ruined. She hit it, and did it a number of times. Howard Carr, who is the best target shot on the Pacific Coast with a heavy rifle, tried seven times to do the same thing and gave it up in disgust, and when Carr gets tired trying at steady shooting it is discouraging work to take up. When the dime is struck just right it looks almost like a horse's foot and ankle.

Then she shot at a small bull's eye, ½-inch, I think, at the same distance that she did all her shooting, 32 feet, the test was to shoot a Ballard rifle twenty-five times in a minute. This she did and had a couple of seconds to spare. And what was wonderful about it was that most of the shots were bull's eyes. I had not thought it possible before this, that a single loader could be fired so rapidly, and can hardly understand it yet as I look back at it, that she could go through all the motions so smoothly, as I stood and watched her it looked very simple and easy, try it. It is good practice.

Among her other targets was a jack rabbit of cast iron, so arranged that when you hit the bull's eye, which was about where the heart would come, he would turn a somerset quite rapidly. Several times I saw her hit the ⅜-inch bull's eye, and as the rabbit turned over put two balls in his head before he came to a stop.

I will not attempt to say how fast she can shoot with the Winchester already spoken of. It seemed to me, without any exaggeration, that the gun gave out a steady stream of fire from the first shot to the end of the twenty-five cartridges.

One of her favorite shots with a Winchester is to shoot at a lot of glass balls that are suspended from a board that swings, and have the balls filled with water. As each one breaks, it makes quite a splash. One night, at one of the theaters where she was giving an exhibition, an army officer who could not believe that the shooting was genuine, wanted to get behind the scenes where he could see it better. He was placed in a good position, and he stayed there till that part of the performance was over much against his will. He was so hemmed in with "flies" and stage scenery that the only way out was where she was shooting, so he waited. When he came out he was soaked from head to foot, and a thorough believer in Miss Smith's shooting abilities.

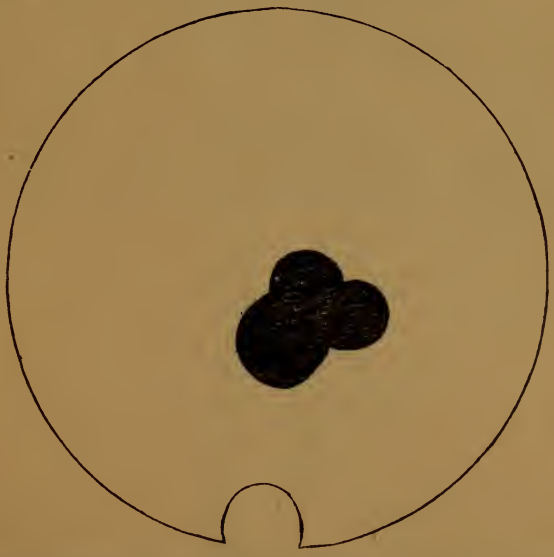
I have not space to give many of her performances, but will put in a few. During the holidays, in 1883, at Hollister, Cal., she attended a turkey shoot. The distance was 200 yards, but as she had only her 22-caliber Ballard they proposed that she should shoot at 150. She bagged four turkeys in succession, and then the proprietor thought he had sold her enough at that price. Then she proposed that they suspend a glass ball from a string at 100 yards, and she would shoot at that. She took one sighting shot, and then broke three in succession—that finished the man with the turkeys. On June 28,

1883, at Hollister, Cal., she made 20 shots in one minute at a Creedmore target with her 22-caliber Ballard, at a distance of 90 feet, making 78 out of a possible 100. Same place, July 21, 1883, she shot 30 shots with her Winchester in fifteen seconds, hitting an 8-inch bull's eye every time, distance not given.

Up to 100 yards, off-hand and shooting on time, for both speed and accuracy with a Ballard single-loader, she has had an open challenge standing for a long time, but no one seems to accept it.

All the shooting that I saw her do was perfectly fair and square, and I would very much like to see her pitted against some of those that talk so much about what they can do, but never get down to a match.

A very pretty shot that I saw Dr. Chismore make at San Francisco, was done as follows: He placed in the bull's eye (1¼ inch) a government bullet, and as the target was in motion he shot past the bullet and rang the bell the first shot, and the second hit the bullet fair on the end, with a 22-caliber rifle, distance 32 feet. He recently sent me a *fac simile* of a target he made with a Winchester express, at 50 yards with a rest, five consecutive shots. It is given below. Four of the balls are all in one hole, and can almost be covered with a nickel, and one in the edge.



While at San Francisco I saw Mr. Robinson (whom I have previously mentioned) shoot fifteen consecutive shots with a 32-caliber Winchester with

a rest at 100 yards; two of the shots were outside of a 3-inch circle about 5/8 and 7/8 of an inch, but, notwithstanding this, the string measure of the whole fifteen shots was only 14 3/8 inches. The shooting was quite rapid too, about 5 seconds to each shot, which, taking into consideration the fact that Mr. R. was in poor health, and had a bad place to sight from, is, I think, very fine shooting.

This was done with a Lyman sight, I must admit, and I saw him do very fine work with it besides, but he had to change it continually.

The West furnishes a great many fine shots, especially with a revolver. This I have not spoken of before, as it does not come in under the title of the book, still, a few remarks about it may not be out of place.

It is supposed by many that a good shot with a revolver does not see the sights. This, like the rifle shooting, I think from all I can learn, is a mistake. I have talked with a number of the finest pistol shots living, who could shoot as fast as the revolver would work, and do good execution, and without an exception they have told me that they always sighted the revolver. like the rifle. You have plenty of time to do so, and the part of the business that requires skill mainly, is to bring the revolver to the correct place every time. Keep your eye on your object and bring the revolver quickly up, and when it comes to the level of the eye, it should be properly sighted.

A good weapon that I have seen for practice, is a 44-caliber revolver, with the catch taken out so it would not turn, and a 22-caliber barrel put inside of the barrel of the large one, and run clear through the cylinder, and an extractor arranged so that when you threw up the barrel to reload, you would extra t the shell. It should have at least a 3-pound pull, and by using such a weapon you get used to the action and handling of the 44-caliber.

[Cut 1 is a favorite position with some and needs a word of explanation. Before going to the score the gun is brought to the shoulder and the left arm extended along the barrel as far as it will go. The hold on the barrel is *retained* with the left hand when the gun is let down. When standing at the score and the word is given, the left arm being extended acts as a guide in bringing the gun again to the shoulder, as in bringing it rapidly up in this position, the stock should *just barely clear* the shoulder.]

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Hindoo.	Tom Bowling.
Parole.	Falsetto.
Mollie McCarthy.	Spendthrift.
Ten Broeck.	Luke Blackburn.
Tom Ochiltree.	Miss Woodford.

Freeland.

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Cod Fishing.	Blue Fishing.
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Just Caught—A String of Fish.

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Champion Irish Setter "Rover."

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The R. E. Lee and Natchez—Race.
Burning Steamship Golden Gate.
Burning Steamship Austria.
Steamboats on the Sound—Moonlight.
Little Ship Red, White and Blue.
Steamship Ville de Paris.
Clipper in a Snow Squall.

Steamship Periere.	Yacht Madeleine.

Yacht Countess of Dufferin.

Yacht America.	Yacht Sappho.
Yacht Meteor.	Yacht Cambria.
Yacht Dauntless.	Yacht Vesta.
Yacht Henrietta.	Yacht Fleetwing.

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Bound Down the River.
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Sappho and Livonia—Cup of 1871.

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Ice Boat Race on the Hudson.	
Nipped in the Ice.	Outward Bound.

Wreck of the Atlantic.

Homeward Bound.	Steamboat Bristol.
Steamb't Providence.	Steamboat Drew.

Steamboat Rhode Island.
Wreck of the Schiller.
Clipper Dreadnaught.
Red Jacket in the Ice.
Loss of the Ville du Havre.
Steamship City of Montreal.
Steamship City of Peking.

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